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Revision of the genus *Olesterus* SPINOLA, 1841, with description of new species from Australia.

(Coleoptera, Cleridae)

By Roland GERSTMEIER

Abstract

The genus *Olesterus* SPINOLA, 1841 is revised, four species are newly described: *Olesterus ornatus* sp. n., *Olesterus rufiventris* sp. n., *Olesterus stirlingensis* sp. n., and *Olesterus tuberculosus* sp. n. The following new combinations and synonyms of species are indicated: *Trogodendron aurotomentosum* SCHENKLING, 1903, comb. n., syn. n. of *Olesterus australis* SPINOLA, 1844; *Pseudolesterus cribrum* (CHEVROLAT, 1876) comb. n.; *Olesterus bifasciatus* PIC, 1941, comb. n., syn. n. of *Pseudolesterus cribrum* (CHEVROLAT, 1876); *Pseudolesterus novacaledonicus* MIYATAKE, 1968, syn. n. of *Pseudolesterus cribrum* (CHEVROLAT, 1876).

Introduction

Six species of the genus *Olesterus* SPINOLA, 1841, from Australia and New Caledonia are listed in the catalogue of CORPORAAL (1950): *Olesterus australis* SPINOLA, 1844, *O. bifasciatus* PIC, 1941, *O. cribrum* (CHEVROLAT, 1876), *O. gracilis* GORHAM, 1876, *O. micans* PIC, 1941, and *O. ?ventralis* (WESTWOOD, 1852).

Olesterus ventralis (WESTWOOD, 1852) was marked with a question mark, because SCHENKLING (1916) doubted that *ventralis* is an *Olesterus*.

While checking the Clerid material of several museum collections (see list below), I discovered five specimens of the genus *Olesterus*, with apparently represent three new species. Another new species was collected by myself in Western Australia. Apart from *Olesterus australis* SPINOLA, 1844, specimens of the genus *Olesterus* are represented in the museum collections only by single specimens. The knowledge of the type material seems to be indispensable for identification of species and brought some taxonomic rearrangements within this genus.

Abbreviations

- ANIC – Australian National Insect Collection, Canberra
- CRG – Collection of R. GERSTMEIER, München
- MZP – Museum Zoologicae Polonicum, Warszawa
- QMB – Queensland Museum, Brisbane
- SAMA – South Australian Museum, Adelaide
- UQIC – University of Queensland Collection, Brisbane
- WAM – Western Australian Museum, Perth

Olesterus SPINOLA

SPINOLA, 1841, p. 74; SPINOLA 1844, p. 226; LACORDAIRE 1857, p. 455; DESMAREST in CHENU 1860, p. 250; BLACKBURN 1900, p. 117; SCHENKLING 1903, pp. 27, 62

Type species: *Olesterus australis* SPINOLA, 1844, p. 228

Diagnosis of genus:

Antennae: 11 segmented; 1st segment stout, thickened, slightly curved; 2nd segment much thinner, short; 3rd segment longer (but not twice as long as 2nd) and more slender than 2nd; 4th to 8th segments similar, 9th to 11th segments becoming larger, forming a loose club; 11th segment not as long as 9th and 10th segments together.

Head: Labrum emarginate to bilobed; terminal segments of labial and maxillary palpi securiform.

Prothorax: Front coxal cavities open behind; front femora slightly thickened.

Elytra: With conical humeral tubercles or elongate callosities, regularly raised; without tuft of hair.

In the related genus *Trogodendron* the 3rd antennal segment is twice as long as 2nd, the 11th segment is nearly as long as 9th and 10th segments together (in males much longer), the humeral tubercles of the elytra are elongate, anteriorly highest and with long tuft of hair; the front femora are much more thickened than the others.

Discussion of the status of the genus *Olesterus*

With respect to the characters mentioned above, *Olesterus cribrum* (CHEVROLAT, 1876), having entirely closed front coxal cavities and cylindrical maxillary palpi, does not belong to *Olesterus*, but to *Pseudolesterus* MIYATAKE, 1968. Unfortunately, it was impossible to get the type of *Pseudolesterus novacaledonicus* MIYATAKE, 1968, from the Osaka Museum for comparison; on the other hand, the description of MIYATAKE (1968) is so detailed, to show that *novacaledonicus* is evidently a synonym of *cribrum*. Nevertheless, the establishment of the genus *Pseudolesterus* is legitimate. Examination of *O. bifasciatus* PIC, 1941, proved as well, that it is certainly conspecific with *cribrum*. A revision and description of new species of the genus *Pseudolesterus* from New Caledonia will be done by J. J. MENIER (Paris).

Examination of the holotype and other material of *Trogodendron aurotomentosum* SCHENKLING, 1903, (MZP), showed that this species is identical with *Olesterus australis* (SPINOLA, 1844). *O. ventralis* takes an intermediate position, because it has the front coxal cavities open, but the maxillary palpi cylindrical, so that it could be assigned neither to *Olesterus* nor to *Pseudolesterus*. Therefore, it belongs to a new genus, which will be described in a further publication.

In spite of extensive enquiries, *Olesterus micans* PIC, 1941, could not be found in the collections of the Natural History Museum, Paris, and therefore, it will be excluded from this paper.

The following concept of *Olesterus* and *Pseudolesterus* is proposed:

Olesterus SPINOLA

- Front coxal cavities open
- Maxillary palpi securiform

australis SPINOLA, 1841

= *Trogodendron aurotomentosum* SCHENKLING, 1903, (comb. n., syn. n.)

gracilis GORHAM, 1876

ornatus sp. n.

rufiventris sp. n.
stirlingensis sp. n.
tuberculosis sp. n.
 ? *micans* PIC, 1941 (Holotype not found)

Pseudolesterus MIYATAKE

- Front coxal cavities closed
- Maxillary palpi cylindrical

cribrum (CHEVROLAT, 1876)

- = *Olesterus cribrum* CHEVROLAT, 1876 (comb. n.)
- = *bifasciatus* PIC, 1941 (comb. n., syn. n.)
- = *novacaledonicus* MIYATAKE, 1968, (syn. n.)

Key to species

- 1 Body longer than 12 mm, head including eyes narrower than apex of pronotum *australis*
- Body shorter than 9 mm, head including eyes wider than apex of pronotum 2
- 2 Sides of pronotum behind middle \pm parallel, scutellum and legs reddish brown 3
- Sides of pronotum behind middle not parallel, scutellum dark brown or black, legs brown to dark brown 4
- 3 Elytra punctate, between base and fascia; centre of the fascia strongly raised, abdominal sternites reddish brown, pronotum behind anterior transverse impression nearly smooth *rufiventris* sp. n.
- Elytra punctate also behind fascia; centre of the fascia not raised, abdominal sternites black, pronotum behind anterior transverse impression conspicuously, deeply and irregularly punctate or wrinkled *tuberculosis* sp. n.
- 4 Pronotum widest behind middle *stirlingensis* sp. n.
- Pronotum widest anteriorly 5
- 5 Elytra without white fascia *ornatus* sp. n.
- Elytra with white fascia *gracilis*

Olesterus australis SPINOLA, 1844

(Figs 1, 11, 16, 19, 20, 24)

SPINOLA, 1844, p. 229; DESMAREST in CHENU 1860, p. 250 = *Trogodendron aurotomentosum* SCHENK-LING, 1903, p. 17 (comb. n., syn. n.); ELSTON 1923, p. 214

Length: 12.2–17.0 mm

Head: Head including eyes narrower than apex of pronotum; dorsal surface very finely, irregularly punctate and wrinkled, intervals glossy; labrum emarginate to bilobed; antennae brown to black, 1st segment dorsally black (ventrally brown), 2nd segment brown, 3rd to 4th segments increasingly dark brown, 5th to 10th segments black, 11th segment brown.

Pronotum: Widest just in front of middle, sides at the transverse impression strongly notched; anterior part covered with fine and dense wrinkles and punctures, glossy; in parts very densely covered

with hairs; behind the anterior transverse impression conspicuously and deeply punctate; diameter of punctures at least two times as large as intervals between punctures.

Scutellum: Black, wrinkled, dull, margin with fringe of hairs.

Elytra: Almost parallel, sides near middle slightly constricted; with very high, conspicuous, smooth humeral tubercles; with a slightly curved, oblique, pale yellowish, median fascia, fascia interrupted at suture. Surface with short, dense golden pubescence, extending to apical third; elytra in this part dull, slightly wrinkled. Basal half to fascia with deep and nearly circular punctures (diameter of punctures more than two times than intervals), punctures in the apical half even deeper and more transversely oval-shaped. Suture between tubercles and fascia covered with dense white pubescence; sutural angles separately rounded.

Legs: Long, slender, black, tibiae slightly curved.

Lower surface: Abdominal sternites black; terminal sternite and pygidium see fig. 16; aedoeagus see fig. 19, ovipositor see fig. 20.

Distribution: Western Australia, Nedlands (Perth); South Australia, Adelaide; South Australia, Gawler; Victoria; New South Wales, N Sydney; New South Wales, Dorrigo; New South Wales, Mt. Tamborine.

Olesterus gracilis GORHAM, 1876

(Figs 2, 12, 24)

GORHAM, 1876, p. 87; WATERHOUSE 1882, t. 123

Length: 7.3–7.8 mm

Head: Head including eyes wider than apex of pronotum; black; regularly and very finely wrinkled, slightly glossy; densely covered with pale hairs; antennae brown to black; labrum emarginate.

Pronotum: Elongate, widest in front, narrowed towards base, base strongly constricted; with a shallow transverse impression; anterior part irregularly punctate, glossy; behind transverse impression slightly wrinkled; covered with very long, whitish hairs.

Scutellum: Dark brown.

Elytra: Narrowest in front of middle, wider towards apex; sutural angles rounded; tubercles blunt and evenly raised; with a transverse to slightly oblique white fascia before middle, extending from lateral margin to suture and narrowed towards suture. Slightly more than apical third with a dense white pubescence, becoming less dense to lateral margin; apical third with fine wrinkles, dull. Longitudinal rows of circular punctures between base and hind margin of fascia, diameter of punctures twice as large as intervals; punctures between hind margin of fascia and apex transversely oval-shaped, intervals between punctures becoming smaller, dull; with long white hairs.

Legs: Blackish brown, tibiae evenly curved; with long dense white hairs.

Lower surface: Black, abdominal sternites and tergites, and genitalia unknown.

Distribution: New South Wales, Mt. Tamborine; New South Wales.

Olesterus ornatus sp. n.

(Figs 3, 7, 13, 21, 24)

Holotype: ♀, N. S. Wales, 9058; National Park-Lea; (SAMA).

Length: 8.0 mm

Head: Head including eyes wider than apex of pronotum; black; slightly wrinkled, glossy; labrum bilobed; densely covered with white hairs; 1st to 3rd segments of antenna brown, 4th to 11th segments black.

Pronotum: Elongate, strongly narrowed towards base; anterior part sparsely and confusely punctate, glossy; behind the shallow transverse impression slightly wrinkled, glossy; with long, erect, pale hairs.

Scutellum: Black, dull.

Elytra: With characteristically amber-coloured pattern (see fig. 3), including the slightly raised humeral tubercles. Elytra narrowest in middle, wider towards apex; with long yellow-brown hairs. From anterior part to posterior border of pattern evenly punctate in longitudinal rows; diameter of punctures twice as large as intervals; punctures between posterior border of pattern and apical pilose part deeply, transversely oval-shaped, with narrow and elevated intervals between punctures. Surface with dense, depressed, white pubescence, slightly extending to apical third; elytra in this part finely wrinkled and dull. Sutural angles rounded.

Legs: Dark brown; tibiae slightly curved.

Lower surface: Abdominal sternites black, terminal sternite and pygidium see fig. 13; ovipositor see fig. 21.

Olesterus rufiventris sp. n.

(Figs 4, 8, 18, 24)

Holotype: ♂, Tooloom NSW; 19.1.26; U.Q.I.C., Loan 695; (UQIC).

Paratypes: ♂♂, Brisbane; J. S. Rodston, 17.2.41; U.Q.I.C., Loan 695; (UQIC); Brisbane: H. Hacker; 25.11.13; Opilo Id. by A. M. Lea; Lea 3017; (QMB), ♂ Australia, QLD; 5 km n Canungra; 26.11.1990 leg. R. Gerstmeier; unter Eukalyptus-Rinde; (CRG); ♂ Australia, QLD; 10 km ö Gayndah; 9.11.1990 leg. R. Gerstmeier; (CRG).

Length: 5.2–6.5 mm

Head: Head including eyes slightly wider than apex of pronotum; dark brown; labrum emarginate to bilobed, light reddish brown; irregularly, conspicuously and in parts densely punctate, slightly glossy; with dense white hairs; antennae uniformly reddish brown.

Pronotum: Nearly parallel, base constricted; with V-shaped transverse impression; apical part conspicuously and irregularly punctate with large and small punctures, towards base nearly smooth, strongly glossy; surface with long, dense, white hairs.

Scutellum: Reddish brown, finely punctate.

Elytra: Compact, nearly parallel; reddish brown to dark brown; narrowest in middle, just in front of the white fascia; fascia wide, extending from lateral margin to suture, narrowed towards suture; fascia with strongly raised centre, this part is impunctate; with elongate, slightly raised tubercles. 10 longitudinal rows of punctures present: 1st and 2nd row with circular punctures, their diameter slightly larger than intervals; 3rd to 6th rows with large, wide, transversely oval-shaped punctures and raised intervals, diameter of punctures two to three times as large as intervals; 7th and 8th rows more square-shaped; 9th and 10th rows with nearly circular punctures. Puncturation reaching hind margin of the white fascia, behind fascia with longitudinal keels, conspicuous towards apex of elytra; apex slightly, irregularly punctate; apical part behind fascia smooth and strongly glossy; with sparse, short hairs, at apex more dense and longer; sutural angles rounded.

Legs: Slightly reddish brown; hind tibiae nearly straight; front femora conspicuously thickened, towards tip strongly curved inwards; with long white hairs.

Lower surface: Uniformly reddish brown. Aedoeagus see fig. 18.

Olesterus stirlingensis sp. n.

(Figs 5, 9, 14, 17, 22, 24)

Holotype: ♂, W-Australia 27.11.1987; Stirling Range, Toolbrunup Peak 950–1050 m; leg. Gerstmeier/Bachr; (ANIC).

Paratypes: 1 ♀, W-Australia 26. 11. 1987; Stirling Range, Bluff Knoll 1000 m; leg. Gerstmeier/Baehr; (ANIC). 1 ♂, same locality as holotype; (WAM); 3 ♂♂, same locality as holotype; (CRG); 1 ♀, W-Australia 24. 11. 1987; Red Lake, b. Lake Muir; leg. Gerstmeier/Baehr (CRG).

Length: 6.5–8.5 mm

Head: Head including eyes wider than apex of pronotum; dark brown; labrum bilobed. Surface regularly and more or less coarsely wrinkled, slightly glossy; with relatively dense, pale hairs. Antennae light brown to dark brown.

Pronotum: Elongate, widest behind middle, base strongly constricted. With a curved transverse impression on both sides in apical third; slight longitudinal groove in middle of basal part; surface at base more coarsely wrinkled, also more coarsely than head; with long, erect, white hairs.

Scutellum: Black; densely, shaggy, white pubescence.

Elytra: Elongate, constricted in middle, wider towards apex; tubercles evenly raised, smooth, glossy; with an oblique white fascia immediately behind middle, extended from lateral margin to suture; apical third with dense, yellow, short pubescence, becoming less dense to lateral margin; other hairs silvery white; basal part coarsely punctate just beyond the white fascia, with 10 longitudinal rows of conspicuous punctures, diameter of punctures two to three times as large as intervals; apical part of elytra smooth and glossy, black (brown); sutural angles rounded.

Legs: Dark brown, hind femora reaching apex of elytra, all tibiae slightly curved in apical part.

Lower surface: Black; female terminal sternite and pygidium see fig. 14; aedeagus see fig. 17; ovipositor see fig. 22.

Olesterus tuberculosus sp. n.

(Figs 6, 10, 15, 23, 24)

Holotype: ♀, Kuranda; Queensland; F. P. Dodd; (SAMA).

Length: 7.3 mm

Head: Head including eyes not much wider than apex of pronotum; conspicuously but not coarsely wrinkled; glossy, black; labrum emarginate; densely covered with short, reddish brown hairs. Antennae uniformly reddish brown.

Pronotum: Sides nearly parallel, evenly rounded to base, pronotum nearly spherical; pronotum with a slight, transverse impression. Antero-medially with elongate wrinkles, laterally with transversely oval-shaped puncture, glossy; behind the transverse impression conspicuously, deeply, irregularly punctate to wrinkled.

Scutellum: Reddish brown with black tip.

Elytra: With conspicuously raised, smooth, nearly conical tubercles. About in middle with a wide, white, straight transverse fascia; covered with dense, golden, glossy, short pubescence along suture towards sutural angle; sutural angles separately rounded. Elytra dark brown; longitudinal rows of conspicuous, deep punctures from base of elytra to hind margin of fascia; diameter of punctures 1.5 times as large as intervals. Surface behind fascia very deeply punctate, with narrow intervals, last fourth of surface smooth and glossy.

Legs: Uniformly reddish brown, tibiae slightly curved (hardly perceptible), with narrow grooved edge.

Lower surface: Abdominal sternites black; terminal sternite and pygidium see fig. 15; ovipositor see fig. 23.

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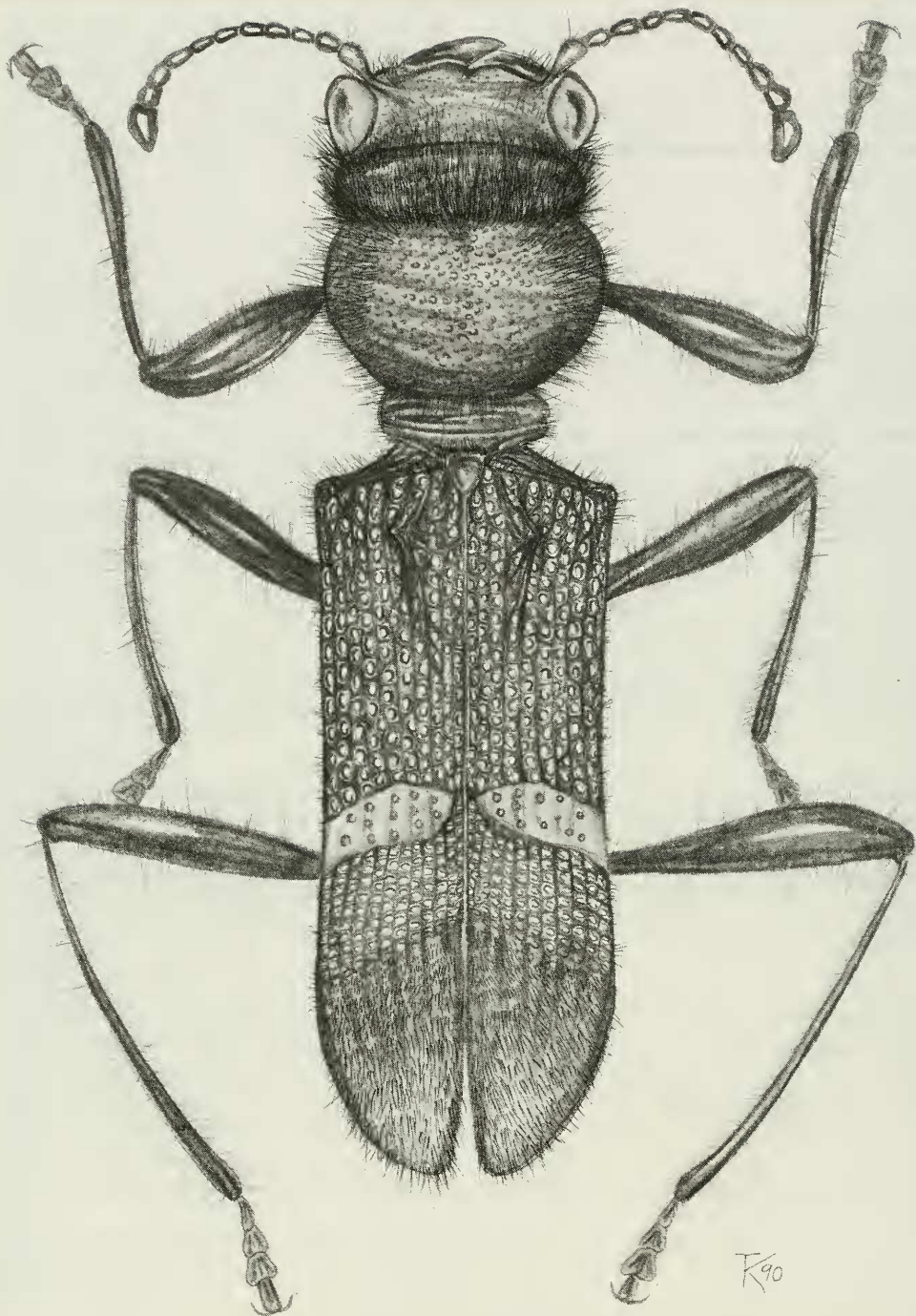


Fig. 1. *Olesterus australis* SPINOLA, 1844.

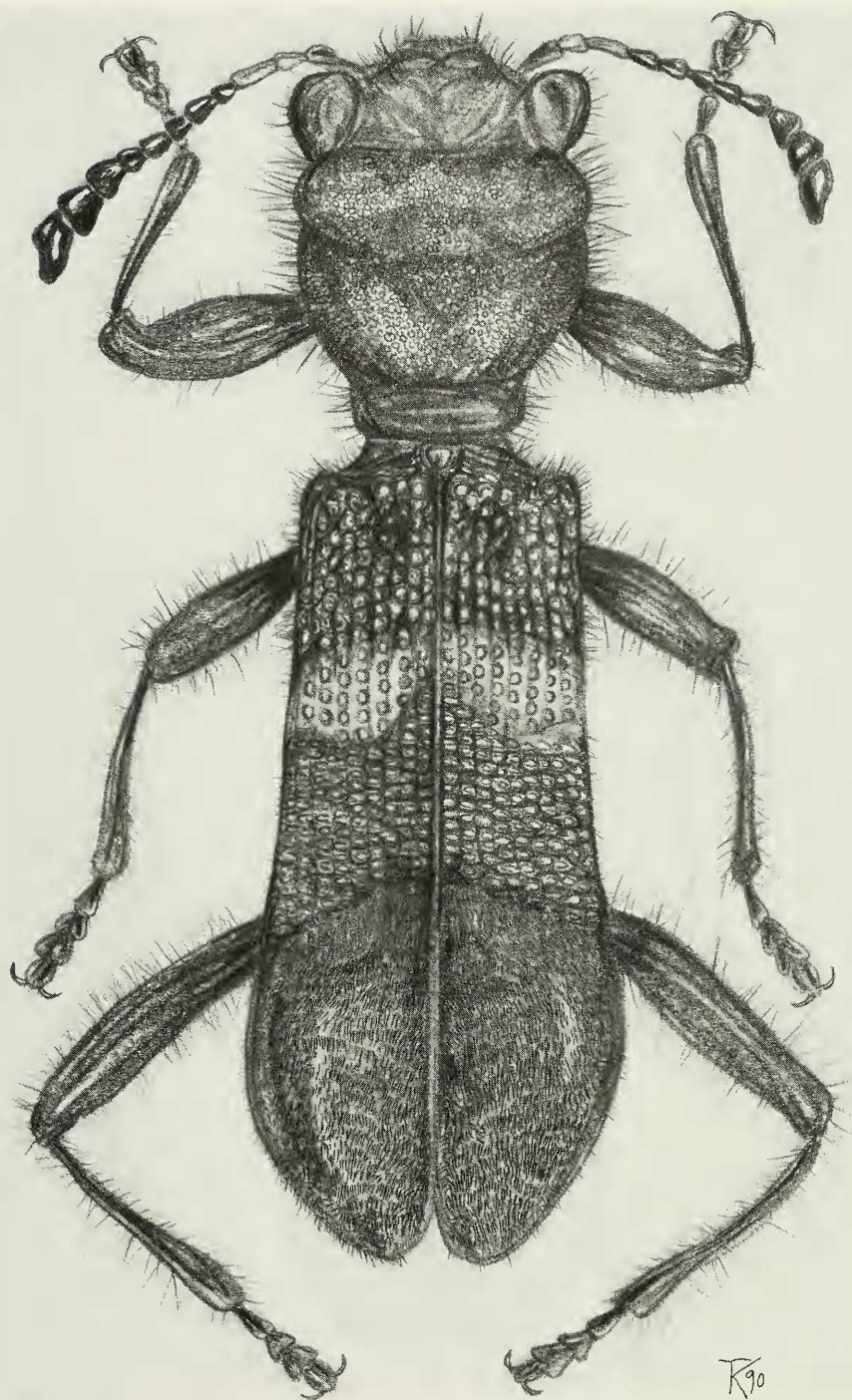


Fig. 2. *Olesterus gracilis* GORHAM, 1876.

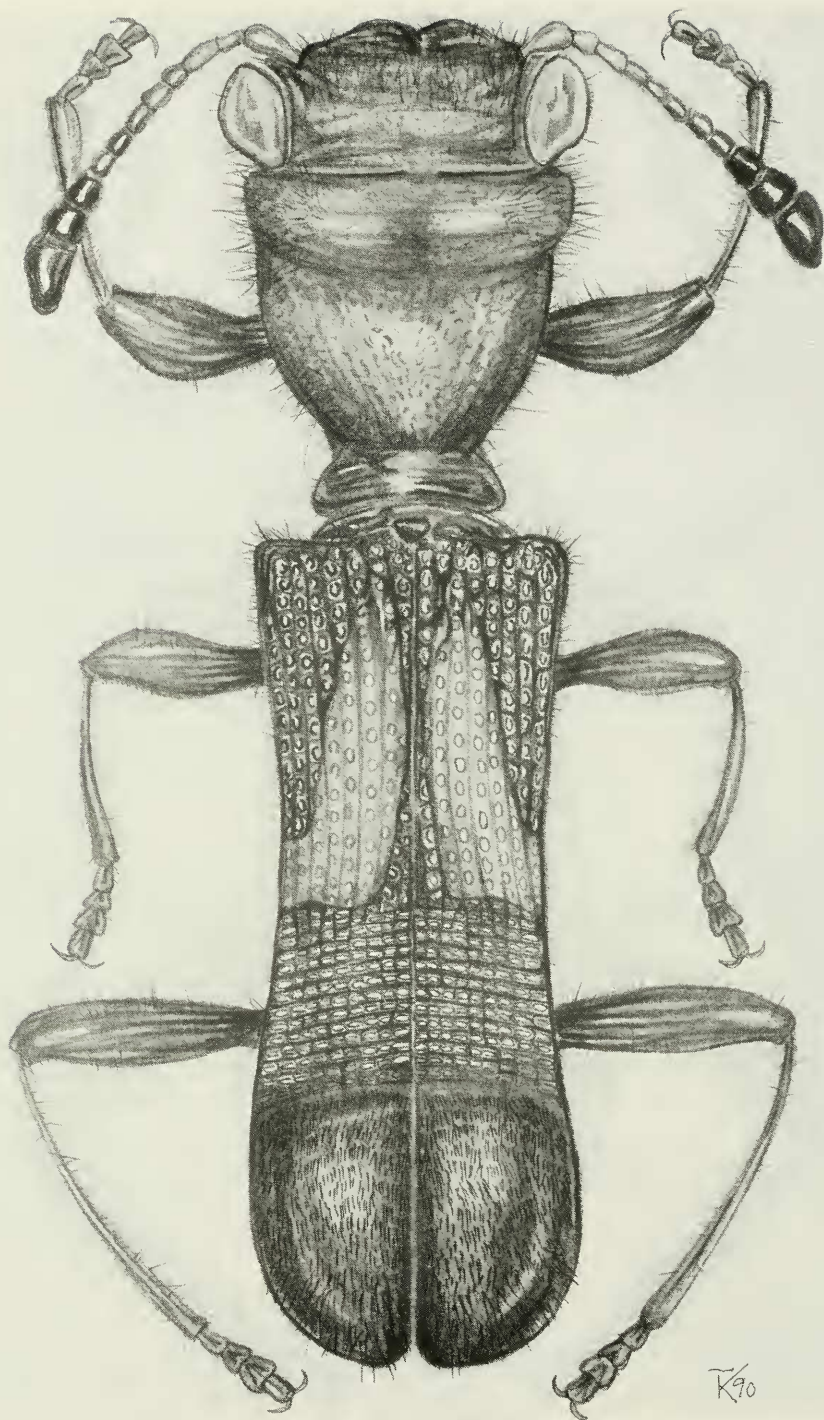


Fig. 3. *Olesterus ornatus* sp. n., ♀ holotype.

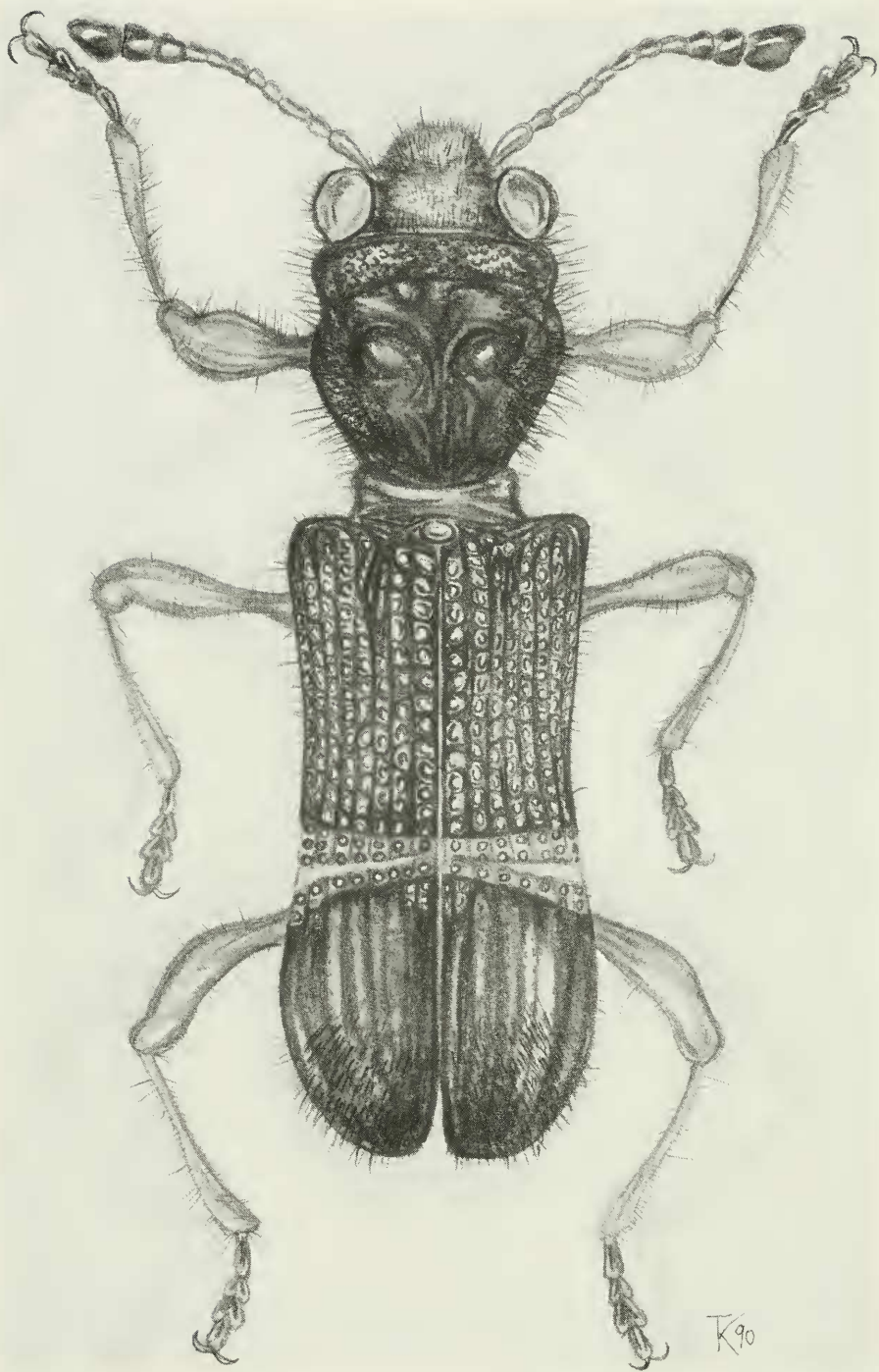


Fig. 4. *Olesterus rufiventris* sp. n., ♂ holotype.

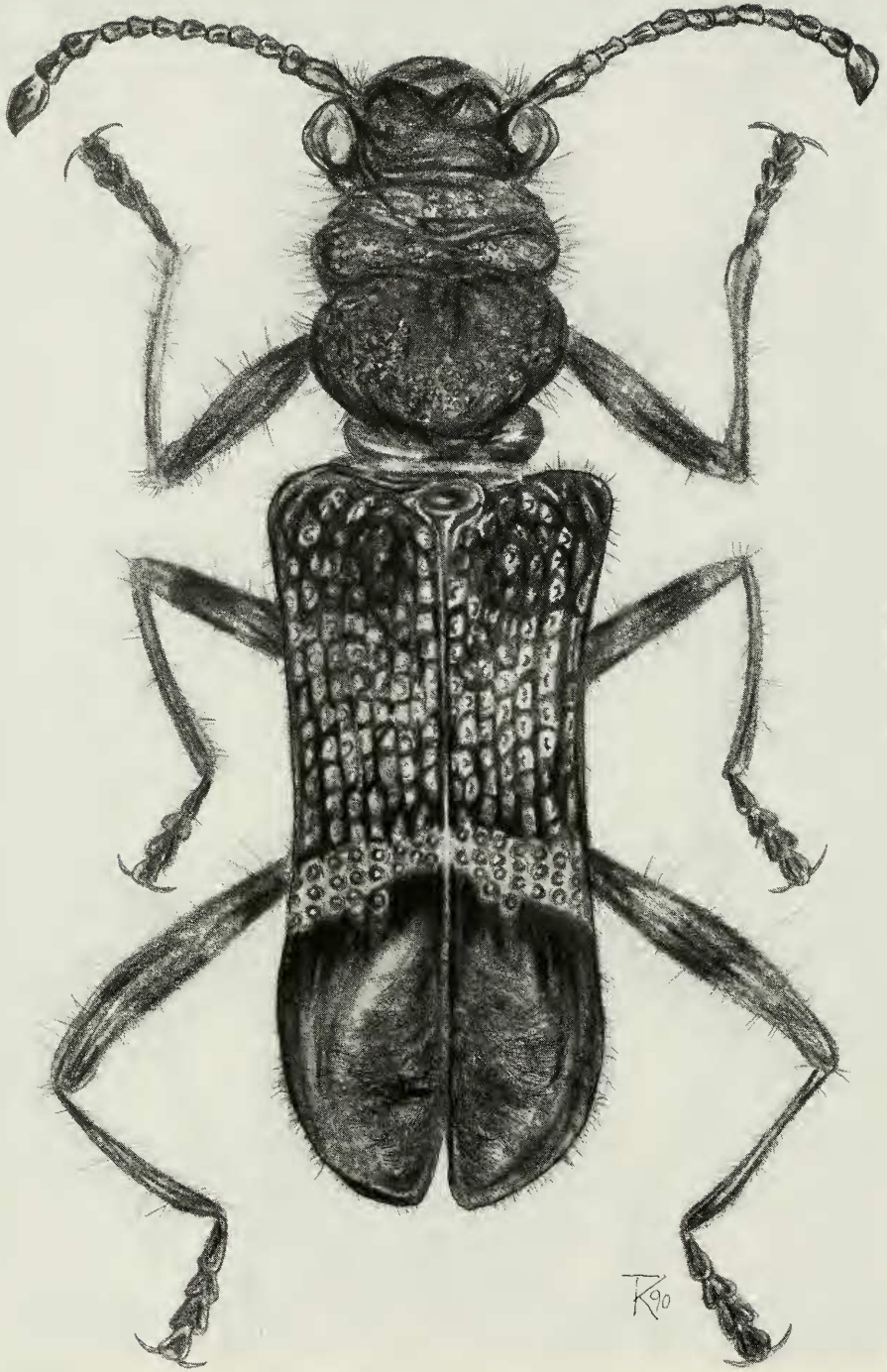


Fig. 5. *Olesterus stirlingensis* sp. n.

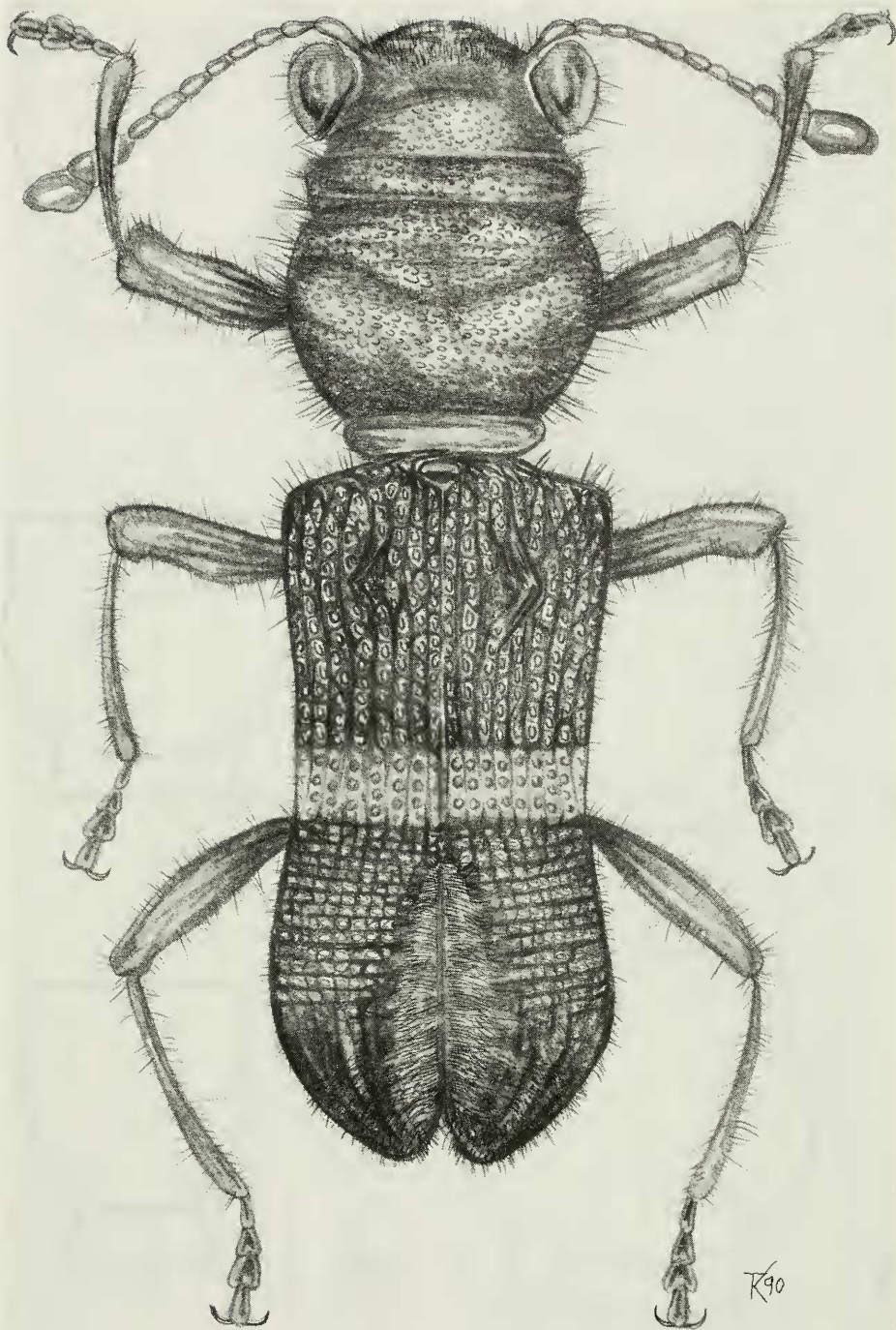
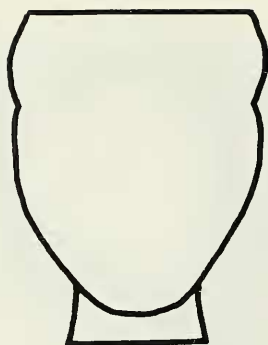
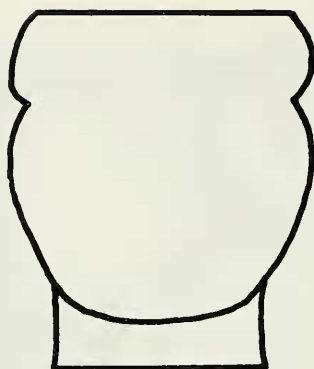


Fig. 6. *Olesterus tuberculosus* sp. n., ♀ holotype.

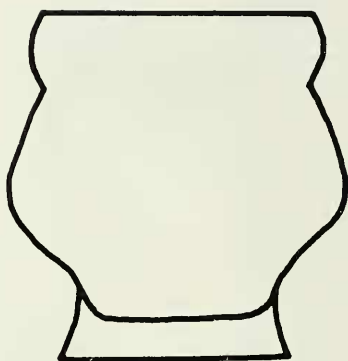
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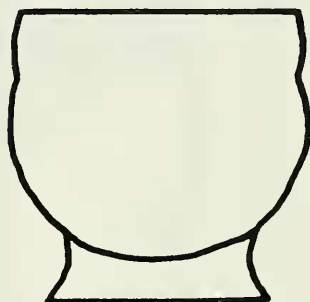
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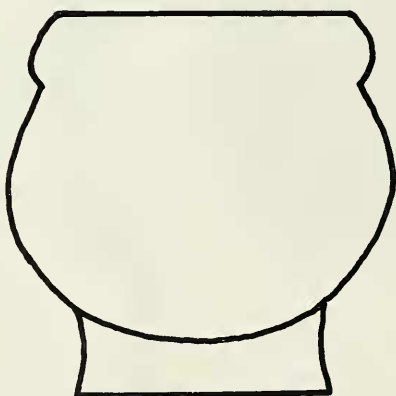
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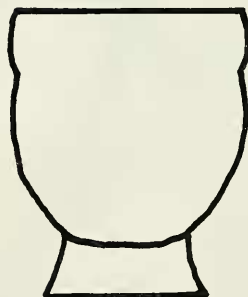
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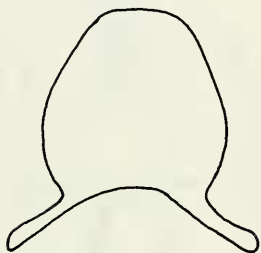
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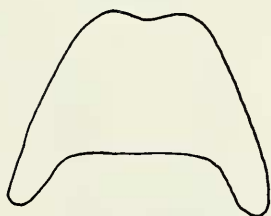
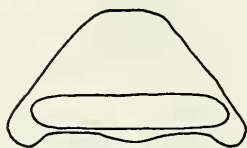
Figs 7–12. Outlines of pronotum. 7. *Olesterus ornatus* sp. n.; 8. *Olesterus rufiventris* sp. n.; 9. *Olesterus stirlingensis* sp. n.; 10. *Olesterus tuberculosus* sp. n.; 11. *Olesterus australis* SPINOLA, 1844; 12. *Olesterus gracilis* GORHAM, 1876.



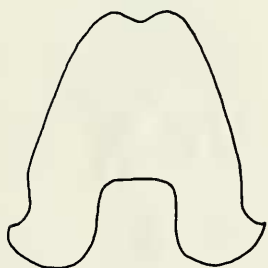
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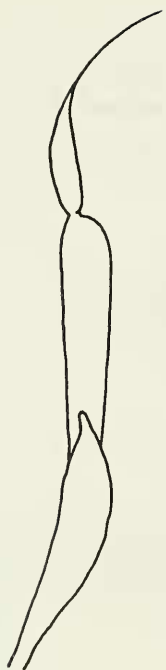


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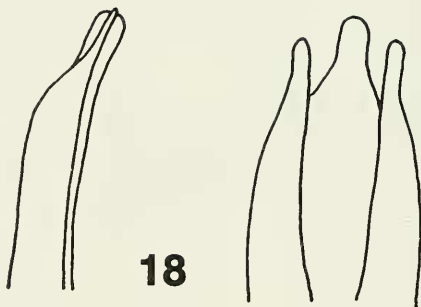


Figs 13–16. Female pygidium (left side) and terminal abdominal sternite (right side). 13. *Olesterus ornatus* sp. n.; 14. *Olesterus stirlingensis* sp. n.; 15. *Olesterus tuberculosus* sp. n.; 16. *Olesterus australis* SPINOLA, 1844.

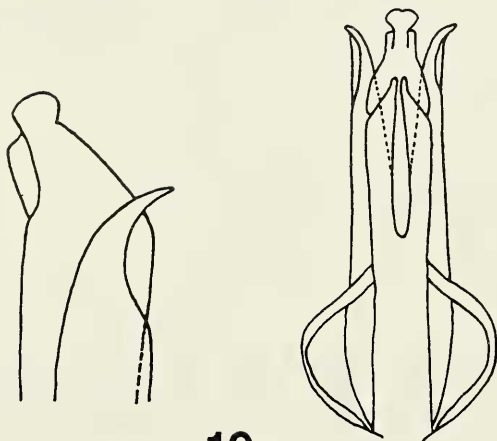
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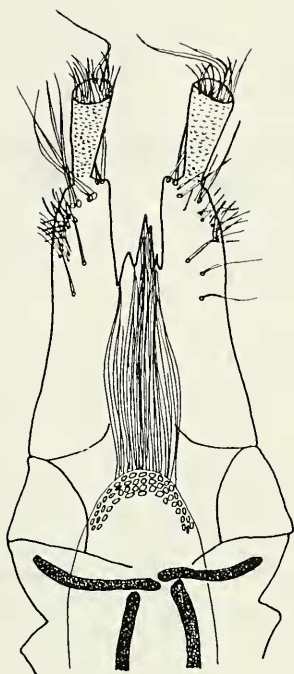
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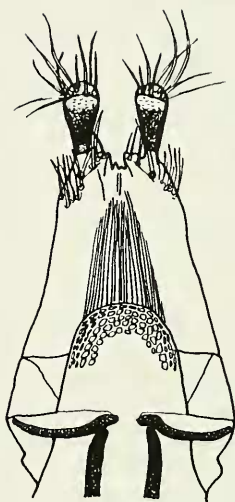
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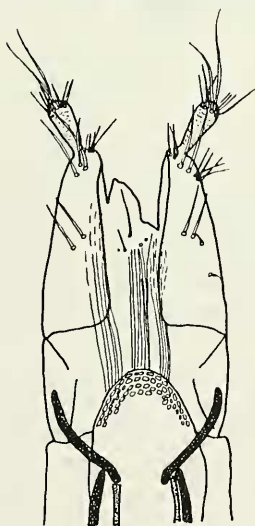
Figs 17–19. Aedoeagus. 17. *Olesterus stirlingensis* sp. n. (lateral view); 18. *Olesterus rufiventris* sp. n. (lateral and ventral view); 19. *Olesterus australis* SPINOLA, 1844 (lateral and ventral view).



20



21



22



23

Figs 20–23. Ovipositor. 20. *Olesterus australis* SPINOLA, 1844; 21. *Olesterus ornatus* sp. n.; 22. *Olesterus stirlingensis* sp. n.; 23. *Olesterus tuberculosus* sp. n.



Fig. 24: Distribution of *Olesterus australis* SPINOLA, 1844 ●; *Olesterus gracilis* GORHAM, 1876 ◐; *Olesterus ornatus* sp. n. *; *Olesterus rufiventris* sp. n. ▲; *Olesterus stirlingensis* sp. n. ♣; *Olesterus tuberculosus* sp. n. ■.